AMENDMENT TO THE CLAIMS

Currently amended

1. A method of communicating over an air interface comprising:

transmitting information over a shared wireless channel by varying a time span and at least one of a bandwidth and a duty cycle, wherein the time span is based on a rate of channel quality variation.

Currently amended

2. The method of Claim 1, wherein ~~the time span and~~ the at least one of a bandwidth and a duty cycle are varied as a function of a channel quality of a wireless receiver.

Original

3. The method of Claim 2, wherein the channel quality comprises at least one of a signal to noise ratio, a bit error rate, a frame error rate and a power loss of a wireless link between the wireless receiver and a wireless transmitter.

Original

4. The method of Claim 2, wherein the channel quality comprises at least one of interference from information transmitted to at least one other wireless receiver, background noise and thermal noise.

Previously amended

5. The method of Claim 1, further comprising the step of transmitting a signal corresponding with a transmission format having a time span and at least one of a bandwidth and a duty cycle to be employed for the information to be transmitted.

Previously amended

6. The method of Claim 5, wherein the signal comprises a bit sequence corresponding with at least one of the varied time span, the varied bandwidth and the varied duty cycle.

Previously amended

7. The method of Claim 6, wherein the transmitting a signal comprises:

determining the transmission format; and

recalculating the bandwidth of the transmission format if the time span is greater than an information payload to be transmitted divided by a data rate of the wireless receiver.

Previously amended

8. The method of Claim 3, wherein the transmitting a signal comprises:

determining the transmission format; and

recalculating the duty cycle of the transmission format if the time span is greater than an information payload to be transmitted divided by a data rate of the wireless receiver.

Original

9. The method of Claim 8, wherein the duty cycle is determined by dividing the information payload by the product of the data rate and the time span.

Currently amended

10. A method of communicating over an air interface comprising:

receiving information over a shared wireless channel by varying a time span ~~space~~ and at least one of a bandwidth and a duty cycle, wherein the time span is based on a rate of channel quality variation.

Currently amended

11. The method of Claim 10, wherein ~~the time span and~~ the at least one of a bandwidth and a duty cycle are varied as a function of a channel quality of a wireless receiver.

Original

12. The method of Claim 11, wherein the channel quality comprises at least one of a signal to noise ratio, a bit error rate, a frame error rate and a power loss of a wireless link between the wireless receiver and a wireless transmitter.

Original

13. The method of Claim 11, wherein the channel quality comprises at least one of interference from information transmitted to at least one other wireless receiver, background noise and thermal noise.

Previously amended

14. The method of Claim 10, further comprising the step of receiving a signal corresponding with a transmission format having a time space and at least of a bandwidth and a duty cycle to be employed for the information to be transmitted.

Previously amended

15. The method of Claim 14, wherein the signal comprises a bit sequence corresponding with at least one of the varied time span, varied bandwidth and the varied duty cycle.

Previously amended

16. The method of Claim 15, wherein the receiving a signal comprises:

determining the transmission format; and

recalculating the bandwidth of the transmission format if the time span is greater than an information payload to be transmitted divided by a data rate of the wireless receiver.

Previously amended

17. The method of Claim 15, wherein the receiving a signal comprises:

determining the transmission format; and

recalculating the duty cycle of the transmission format using a duty cycle if the time span is greater than an information payload to be transmitted divided by a data rate of the wireless receiver.

Original

18. The method of Claim 17, wherein the duty cycle is determined by dividing the information payload by the product of the data rate and the time span.

Currently amended

19. A method for allocating the resources of a wireless base station comprising:

allocating a shared wireless channel between at least two mobile communication devices by varying a time span and at least one of a bandwidth and a duty cycle for each downlink transmission in response to a channel quality of a wireless receiver, wherein the time span is based on a rate of channel quality variation.